CALAVERAS PUBLIC UTILITY DISTRICT

ADDENDUM NO. 1

REQUEST FOR PROPOSALS

JEFF DAVIS WATER TREATMENT PLANT SCADA PROJECT

- 1. The date for interviews is April 11, 2019. CPUD will confirm with proposers by April 10, 2019 if interviews will be held.
- 2. The Opinion of Probable Cost for the Project is \$100,000.
- 3. Firms/Contractors are directed to the attached pre-bid sign in sheet.
- 4. The following items are available from the District upon request:
 - a. State Report Templates
 - b. Contact Time (CT) and Onsite Generation (OSG) Logs
 - c. Original 1972 water treatment plant drawings
 - d. OSG System and Railroad Flat Pump Station drawings
 - e. Schematics for the Eurotherm and Koyo Backwash system
 - f. Verbatim auto dialer list
- To the best of staff knowledge, all components of the Jeff Davis WTP are connected to the Verbatim auto dialer and Eurotherm datalogger, except for the Railroad Flat Pump Station and OSG System, which are independent systems that are only connected to the Verbatim auto dialer.
- The primary SCADA server will be located at the WTP, and a backup server to be located at CPUD Main Office. Provide this cost as a separate line item in your proposal.
- 7. Two new flow meters are to be included and installed as part of this project:
 - a. Combined Filter Effluent (CFE) Flow Meter Size 24" diameter
 - b. Backwash Flow Meter Size 12" diameter

Provide these costs as a separate line items in your proposal.

- 8. CPUD is in the process of developing a formal approach to future SCADA phases. The formal approach will not be provided for this RFP. However, the following items have been identified as components of the future SCADA phases and should be kept in mind for the design of this project:
 - Polymer chemical feed system upgrade: Lead/lag pump, automated flow pacing and dosage control.
 - Zinc Orthophosphate chemical feed system upgrade: Lead/lag pump, automated flow pacing and dosage control.

- Filter sample flow control solenoids, and valve position feedback: On/off solenoids to stop water flow when WTP is not in operation. Valve position feedback for each valve would give the operator more viewing capability and would signal a valve failed to closed or open.
- Raw Water Meter: Meter all incoming flows into the WTP.
- Remote control of RRF Pump Station: remote control capability in addition to existing basic alarm and status monitoring.
- Jeff Davis Reservoir Level: Remote level monitoring of Jeff Davis Reservoir.
- Backwash PLC upgrade: Eliminate Koyo PLC for backwash, integrate into new system.
- Recycle backwash pond: Remote level monitoring of the pond.
- **Pre-clearwell monitoring:** Installation of an additional cl2 analyzer to act as a safety net in the event of a chlorination failure.
- 9. The Verbatim auto dialer currently communicates via plain old telephone system (POTS). CPUD anticipates future communications to be by radio. A radio system survey was completed by the District in 2018. Wi-Fi and cellular are available at the WTP. There is currently no fiberoptic communication available at the WTP site.
- 10. Equipment should be able to run via Programable Logic Control (PLC), with Automated Human Machine Interphase (HMI) to make control setpoint changes, and alarm setpoints, (either by panel view, PC or remote electronic device) with the ability to override PLC, utilizing Hand Off Auto (HOA) type hardwired electrical switching, or Manual mode on the device itself. A typical methodology that is acceptable, is Auto, Manual Remote, and Local Hand Control. Manual remote is achieved through SCADA inter-phasing with PLC with operator intervention. Manual Remote and Local Control are not typical "Normal modes of operation" but used temporarily to troubleshoot or operate a valve or other equipment when Auto fails for some reason. Attention must be taken to provide training to CPUD staff on the HOA and manual controls that are designed as part of this project.
- 11. The Project will include development of a role-based access control that will simplify security administration through the use of roles, hierarchies and constraints to organize user access levels. Firm/contractor shall train District staff on the process of making any necessary changes and updates.
- 12. According to as-built data there is a 1-1/2" conduit that contains a single communication cable from the Railroad Flat Pump Station to the Verbatim auto dialer inside the WTP.
- 13. All physical controls are within the Railroad Flat Pump Station. External instrumentation connected to the station include: tank level transducer and flow meter.
- 14. Per the RFP, CPUD's goal is to have the project completed by June 15, 2019. In responding to the RFP please indicate if this could be an issue or constraint.

- 15. The Genset and Automatic Transfer Switch package was installed at the WTP around year 2002, as part of the Railroad Flat Tank and Pump Station Project.
- 16. Selected Firm/Contractor must be registered with the California Department of Industrial Relations (DIR) by the time of the contract award per Public Contract Code.
- 17. Final Day for RFP questions is March 29, 2019, 3:30pm.
- 18. Firms/Contractors shall note in their RFP response acknowledgement of this Addendum No. 1.

Matt Ospital, District Engineer

3/22/2019

SCADA Project Site Visit Sign-in Sheet Thursday, March 14, 2019

•	ROCKWELL GEORGE	163co	Dirocasia Don Mass	ControlPoint Engineering, Inc. Jeremy Pollett	iCAD Automation Anthony Olivo		Tesco Controls, Inc Alex Leeth), Inc.	American System Controls & Greg Garrison	Сотрапу Сог
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